

REMARKS

Claims 1-6 are pending in this application. Claim 1 is the only independent claims.

By this amendment, claim 1 is amended.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

Telephone Interview

Applicant wishes to thank Examiner Kim for the courtesies extended to Applicant's representative, Carolyn Baumgardner, during the recent telephonic interview concerning the discrepancies in the July 12, 2005 Office Action. During the interview, the improper rejection of claim 6 and the conflicting notations for claims 2, 3 and 5 were discussed. As a result, the July 12, 2005 non-final Office Action was superceded by a September 29, 2005 non-final Office Action, with the period for response being restarted.

The Claims Define Patentable Subject Matter

The Office Action makes the following rejections:

- (1) claims 1 and 2 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,714,776 to Birleson (hereafter Birleson) in view of U.S. Patent No. 4,939,780 to Ohtsubo;
- (2) Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Birleson in view of Ohtsubo and

further in view of U.S. Patent No. 5,608,724 to Green, Jr. (hereafter Green);

- (3) Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Burleson in view of Ohtsubo and further in view of U.S. Patent No. 6,433,639 to Numanami et al. (hereafter Numanami); and
- (4) Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Burleson in view of Ohtsubo and Numanami and further in view of Green.

These rejections are respectfully traversed.

Applicant respectfully submits that the claimed invention, as set forth in claims 1 and 2, is distinguishable from the combination of Birleson and Ohtsubo for at least the following reasons:

The Office Action implies (although not expressly stated) that Birleson fails to disclose that the output circuit is for outputting balanced signals. The Examiner further alleges that Ohtsubo teaches a cable converter including a SAW filter for outputting balanced signals. As such, the Examiner alleges that it would be obvious to provide unbalanced to balance signal conversion to the cable tuner ...since the SAW filter would produced balanced signals, the output circuit coupled to the low pass filter would also output balanced signals.

In other words, it appears that the Examiner feels that by substituting Ohtsubo's SAW filter into the system of Birleson,

balanced signals could be outputted from the output circuit 136 of Burleson. Applicant respectfully disagrees with this allegation.

For example, it appears that the Examiner has missed the point that in the present invention, the output circuit includes an unbalanced/balanced converting circuit for converting unbalanced signals of an output of the lowpass filter to balanced signals. As such, the signal propagating through the circuit in the present invention is an unbalanced signal until it reaches the unbalanced/balanced converting circuit in the output circuit.

In contrast with the present invention, the Examiner's substitution of Ohtsubo's SAW filter with balanced outputs into the system of Birleson would create a balanced signal before the output circuit, thus negating the need to have an unbalanced/balanced converting circuit within the output circuit as claimed in the present invention.

As such, modifying Birleson with Ohtsubo's SAW filter would make portions of Birleson's circuit nonfunctional for its intended purpose. As such, not only does the combination of Birleson and Ohtsubo fail to teach or suggest each and every feature as set forth in the claimed invention, but there also fails to be any proper motivation for combining the teachings of Birleson with Ohtsubo's teachings.

Furthermore, applicant respectfully submits that Green and Numanami fail to make up for the deficiencies found in the combination of Birleson and Ohtsubo.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicant respectfully submits that each combination of cited references fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant further respectfully submits that not only does the references fail to teach or suggest each and every feature as set forth in the claimed invention, but that one of ordinary skill in the art would not have been motivated to combine/modify the teachings of Birleson with Ohtsubo because such a modification would make portions of Birleson's system nonfunctional for its intended purpose.

Applicant respectfully submits that independent claim 1 is allowable over the combination of cited references for at least the reasons noted above.

As for each of the dependent claims not particularly  
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discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1-6 under 35 U.S.C. §103(a) is respectfully requested.

### Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 to schedule a Personal Interview.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

By 

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